Scientific and technological journalism

Academic Year: (2019 / 2020) **Review date: 03-05-2020**

Department assigned to the subject: Communication and Media Studies Department

Coordinating teacher: CATALAN MATAMOROS, DANIEL JESUS

Type: Compulsory ECTS Credits : 6.0

Year : 5 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

News reporting
Interpretative Journalism

OBJECTIVES

One of the major problems of modern society is that scientific and technological production is increasing exponentially and, nonetheless, people are more and more removed from knowledge of these advances because we do not have the ability to take them in with the speed with which they occur. One way to reduce this difference is to publish this information in the media. That is precisely why the aim of this course is to provide students with the basic tools necessary to handle scientific and technological news. The programme not only includes aspects of journalistic writing, but it also aims to place the subject within a context of science, technology and society. Most scientific information reaches the public via television. Thus, the course, in addition to the written media, reinforces content in an audiovisual framework, interactive technology or scientific photography.

DESCRIPTION OF CONTENTS: PROGRAMME

Topic I: Science as something with journalistic interest
Topic II: Sources in scientific journalism
Topic III: Scientific academic journals as sources
Topic IV: Internet and the scientific journalism
Topic V: Writing skills in scientific journalism
Topic VI: Journalistic genres applied to scientific information
Topic VII: Science news published in different media options: press, webs, television and radio.
Topic VIII: Scientific journalism as a profession itself.
Topic IX: Data Journalism.
Topic X. Journalism and Health

LEARNING ACTIVITIES AND METHODOLOGY

Students must write scientific news using all the journalistic genres: report, interview, chronicle, bibliographic summary, news, etc. There will also be comparative analysis of the science sections of different newspapers. Each month there will be an exam on scientific current events.
An attempt will be made to visit an inportant Spanish scientific centre.
SEMINAR:
The students must take a seminar on scientific topics which tend to be newsworthy and which generally correspond to the book Science through Journalism, mentioned in the bibliography.
Topic 1. - Space and the Solar System. Concepts. The International Space Station and the missions to Mars.
Topic 2. - The Earth: its formation and the tectonic plates. Volcanism and earthquakes
Topic 3. - Life: concepts on the appearance of life on Earth, embryonic stem cells. Cloning.
Topic 4. - Ecology and environment. The greenhouse effect, disappearance of the ozone layer and climate change.
Topic 5.- Diet: Food crises. "Mad Cow" Disease, information about rapeseed oil, etc.
Topic 6. - Matter and energy: Nuclear fusion and fission. The ITER project. Oil: information about oil spills.
Topic 7.- Scientific policy. National R+D plans, Spanish research in the CSIC and universities. Brief introduction to the history of Spanish science.

ASSESSMENT SYSTEM

The students must attend the classes and hand in 80% of the practical exercises within the time allotted. The practical sessions will count for 40% of the final grade as long as the theory exam has received a passing score. The theory exam will also include the content of the seminar.

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- BAUER, MARTIN Y BUCCHI, MASSIMIANO (eds). Journalism, Science and Society. , Routledge. New York/London. , 2007
- BUCCHI, MASSIMIANO Y BRIAN TRENCH (eds.). Handbook of Science Communication, Routledge. London & New York., 2008
- ELIAS, CARLOS La ciencia a través del periodismo, Nivola, 2003
- ELIAS, CARLOS Fundamentos de periodismo científico y divulgación mediática., Alianza Editorial. Madrid, 2008
- ELIAS, CARLOS El selfie de Galileo. Sofware social, político e intelectual del siglo XXI, Península-Planeta. Barcelona, 2015
- ELIAS, CARLOS Big data y periodismo en la sociedad red, Síntesis. Madrid, 2015
- GREGORY, JANE y MILLER, STEVE Science in public. Communication, Culture and credibility, Basic Book. London, 1998
- HORGAN, JOHN. El fin de la ciencia. , Paidós. Barcelona., 1998
- SOKAL, ALAIN y BRICMOUNT JEAN. Imposturas intelectuales. ., Paidós. Barcelona, 1999
- WEINGART, PETER and HUPPAUF, BERND Science Images and Popular Images of the Sciences, Routledge, 2007

ADDITIONAL BIBLIOGRAPHY

- BUCCHI, MASSIMIANO. Beyond Technocracy. Citizens, Politics, Technoscience, , Springer, New York , 2009
- CAMACHO MARKINA, IDOIA (coord) La especialización en periodismo. Formarse para informar. , Comunicación Social. , 2010
- ELÍAS, CARLOS La razón estrangulada. La crisis de la ciencia en la sociedad contemporánea, Debate-Penguin Random-House, 2008, 2014, 2015
- JASSANOFF, SHEILA. The fifth Branch: Science advisers as policy makers. , Harvard University Press. Massachussets, 1990
- KALANTZIS-COPE, PHILLIPS Y GHERAB-MARTIN, KARIM Emerging digital spaces in contemporary society. Properties of technology, Pagrave macmillan. New York, 2011
- LEON, BIENVENIDO (coord) Ciencia para la televisión.El documetnal científico y sus claves, UOC. Barcelona, 2010
- REVUELTA, GEMA (coord) Dilemas y acuerdo éticos en la comunicación médica, Civitas Thomson Reuters, 2010

BASIC ELECTRONIC RESOURCES

- Agencia Espacial Europea (ESA) . web de la ESA: http://www.esa.int/ESA
- Alphagalileo . web de AlfaGalileo: http://www.alphagalileo.es/
- EUREKALERT . web de la AAAS: http://www.eurekalert.org/
- Instituto de Astrofísica de Canarias . IAC: http://www.iac.es/
- NASA . web de la NASA: http://www.nasa.gov/
- Nature . web de Nature: http://www.nature.com/
- Science . web de Science: http://www.sciencemag.org/